



# SITE ENTRY CRITERIA

## OBJECTIVE & STRATEGY

The objective of this section is to protect worker safety and health by giving guidance on establishing minimum standards for site entry by properly trained oil spill response workers. Safety is always the first objective of any response. Either of the following two documents supersedes this guidance:

- Incident-specific Site Safety Plan
- Oil Spill Response Organization safety procedures and training for employees/responders

This section contains recommended site safety entry guidelines for crude oil/petroleum spill cleanup operations. In all cases, physical hazards of entry must be considered along with health hazards.

## TACTIC DESCRIPTION

### *Limits to Entry*

- No Entry is authorized if the percentage of Lower Explosive Limit (LEL) exceeds 10% on a calibrated direct reading explosive gas meter.
- No Entry is authorized if the oxygen percentage exceeds 23.5%.

The decision as to whether or not any given entry shall be attempted is ultimately the responsibility of the On-Scene Commander with advice and guidance from:

- The Safety Officer
- The Emergency Response Leader
- The Environmental Unit Leader

### *Site Safety Assessment*

Before commencing oil spill response operations, a site safety assessment should be completed by a Safety Officer, or a properly trained Team Leader. Once the site safety assessment is completed, the proper level of protection will be determined.

Below are four levels of protection for entry into varying conditions listed in descending order of protection. It is required to consult with a "competent person" for job specific PPE requirements. Please note that the recommended levels reflect a 12-hour shift. All employees must have had the necessary training pertaining to their tasks prior to entering any site.

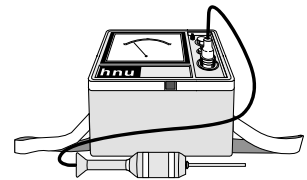
# Site Entry Criteria



## Level A – Highest Level of Protection

Entry by one or more workers with SCBA and a single back-up observer also equipped with SCBA is allowed under the following conditions:

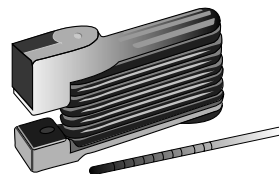
- Oxygen atmospheric concentration is less than 23.5%
- LEL percentage is less than 10% as measured by a calibrated direct reading hand held instrument



## Level B

Entry with full-face air purifying respirator and organic vapor cartridges is allowed by any number of workers without back up observers under the following conditions:

- Oxygen atmospheric concentration is between 19.5% and 23.5%
- LEL percentage is less than 3%
- Total hydrocarbon concentration is less than 500ppm
- H<sub>2</sub>S air concentration is less than 10ppm
- Benzene air concentration is less than 10ppm
- Normal natural or mechanical ventilation is available
- No visible mist or fog of oil present



## Level C

Entry with half-face air purifying respirator and organic vapor cartridges is allowed by any number of workers without back up observers under the following conditions:

- Oxygen atmospheric concentration is between 19.5% and 23.5%
- LEL percentage is less than 3%
- Total hydrocarbon concentration is less than 500ppm
- H<sub>2</sub>S air concentration is less than 10ppm
- Benzene air concentration is less than 3ppm
- Normal natural or mechanical ventilation is available
- No visible mist or fog of oil present



## Level D – Lowest Level of Protection

Entry without respiratory protection is allowed for any work required under the following conditions:

- Oxygen atmospheric concentration is between 19.5% and 23.5%



## Site Entry Criteria

- LEL percentage is less than 3%
- Total hydrocarbon concentration is less than 50ppm
- H2S air concentration is less 10ppm
- Benzene air concentration is less than 0.3ppm
- Normal natural or mechanical ventilation is available
- No visible mist or fog of oil is present

Note that in environments in which excess dust and debris are present an organic vapor/particulate filter is recommended (OV/HEPA).

### DEPLOYMENT CONSIDERATIONS AND LIMITATIONS

- A trained person using properly calibrated equipment must conduct air monitoring during response operations.
- If permissible entry conditions change outside of allowable criteria during entry, the entry must be terminated.

### REFERENCES TO OTHER TACTICS

- PERSONAL PROTECTIVE EQUIPMENT
- SITE LAYOUT AND CONTROL
- DECONTAMINATION

